

2002

## Toward a design process

Joel Shay Aulie

*Louisiana State University and Agricultural and Mechanical College*

Follow this and additional works at: [https://digitalcommons.lsu.edu/gradschool\\_theses](https://digitalcommons.lsu.edu/gradschool_theses)



Part of the [Landscape Architecture Commons](#)

---

### Recommended Citation

Aulie, Joel Shay, "Toward a design process" (2002). *LSU Master's Theses*. 3409.  
[https://digitalcommons.lsu.edu/gradschool\\_theses/3409](https://digitalcommons.lsu.edu/gradschool_theses/3409)

This Thesis is brought to you for free and open access by the Graduate School at LSU Digital Commons. It has been accepted for inclusion in LSU Master's Theses by an authorized graduate school editor of LSU Digital Commons. For more information, please contact [gradetd@lsu.edu](mailto:gradetd@lsu.edu).

# TOWARD A DESIGN PROCESS

A Thesis

Submitted to the Graduate Faculty of the  
Louisiana State University and  
Agricultural and Mechanical College  
In partial fulfillment of the  
Requirements for the degree of  
Master of Landscape Architecture

in

The School of Landscape Architecture

by  
Joel Shay Aulie  
B.S., Texas Tech University, 1996  
August 2002

## **ACKNOWLEDGEMENTS**

Special thanks are extended to my thesis chair, Ray Isaacs, and my committee members, Chris Theis and Max Conrad, for their guidance in the preparation of this paper.

# TABLE OF CONTENTS

ACKNOWLEDGEMENTS.....	ii
LIST OF FIGURES.....	iv
ABSTRACT.....	v
CHAPTER	
1    INTRODUCTION.....	1
Methodology.....	2
Author's Design Process.....	3
End Notes.....	7
2    DESIGN PROCESS.....	8
Endnotes.....	14
3    DESIGNER'S PROCESSES.....	15
Maya Lin.....	15
Lawrence Halprin.....	22
I.M. Pei.....	26
End Notes.....	31
4    EVOLVING PROCESS/CHANGES.....	33
End Notes.....	37
5    CAMPUS MEMORIAL DESIGN.....	38
6    CONCLUSIONS.....	48
REFERENCES.....	51
VITA.....	52

## LIST OF FIGURES

1.	Israel Project.....	4
2.	Wave Field.....	18
3.	Vietnam Veterans Memorial.....	19
4.	The RSVP Cycles.....	24
5.	The Louvre.....	28
6.	The Morton H. Meyerson Symphony Center.....	29
7.	Elevation: The Morton H. Meyerson Symphony Center.....	29
8.	Campus Map.....	39
9.	Stone Rows.....	42
10.	Campus Memorial Design, Plan View.....	43
11.	Tower Dr. West Side of Site.....	44
12.	Ribbon Showing Orientation of Inscriptions.....	44
13.	Memorial Oak Grove; Poor View.....	46
14.	Up-lighting of Oak Trees.....	46

## **ABSTRACT**

This project presents an unconventional approach to an innovative design process. The thesis relates the challenges of adapting to the design studio environment. The author describes a personal journey into the design process, resulting from research and study of specific designers who have had high impact on the new creative approach to landscape design. The insight and knowledge gained from this search was instrumental in the evolutionary process of design, incorporating a universal technique. The resultant process was then applied to a case study and evaluated for merit. The measure of a designer ultimately becomes the work he produces.

# CHAPTER 1

## INTRODUCTION

Throughout the author's graduate career the design process has been somewhat of an enigma. As crucial as the term 'design process' seems to be, little attention has been devoted to the subject. Louisiana State University's curriculum, while heavily slanted toward design, offered little formal education pertaining to what design process is and how one goes about the process of design. I do not intend to say that students do not receive an elementary introduction to design process, they do. Prior to this investigation, the author understood the design process comprised site inventory and then an analysis of the inventory. Intuitively, the author believed more existed than experienced to date. This belief centered on the challenge of establishing a hierarchy of importance for the site inventory. How is one to know if existing vegetation imparts greater consideration than cultural influences? Pursuit of the design process as a possible answer to this question emerged. The understanding of design process is believed to be a viable avenue to command of one's personal design processes. Once a better grasp of personal design process is obtained, one can endeavor to modify the processes involved. To better understand the process of design it would be beneficial to look at the processes of notable designers. While a designer's process might prove enigmatic, a number of notable designers have written about the way they approach design.

In this manner, the process of design commands a study of the presentations of notable designers. It is unnecessary for design students to imitate the processes of notable designers, slavishly copying these designs. Rather, should the designer's processes be scrutinized, experimentation with those processes would present an effectual base for

students to seek expression in a personal design process. However, it does not necessarily follow that a student must comprehend a personal process of design. Some designers instinctively design, unaware of the innate processes leading to successful design.

This thesis incorporates an instrumentally sound structure for those designers, who confront difficulties in comprehension of the design process. The intent is to demonstrate that the aid of published works provides an insight not only of design process, but of personal design processes as well.

It is proposed that the formal consideration of the design process sharpens the focus of individual process, thus allowing for examination of personal design processes. Additionally, formal consideration of historical processes of notable designers permits a framework beneficial to students of design. In particular, this thesis provides a personal theory in design education, a supplement to the field of landscape architecture.

### **Methodology**

Methods proposed by the author in studying the design process indicated a two-fold approach. The first stage of research focused on study of general design process, gathered from information provided by prominent figures related to the study of design: Professor Norman T. Newton, Harvard Graduate School of Design; James Corner, Chair of the School of Landscape Architecture, University of Pennsylvania; and Peter Rowe, Raymond Garbe Professor of Architecture and Urban Design, Harvard University. The second phase of research concentrated on the writings of three landscape designers: Maya Lin, Lawrence Halprin, and I. M. Pei.



The research was then interpreted and applied to the design process, comparing outcomes with previous designs to establish commonalities. Commonalities having been established, the author applied the research to existing case study. The case study then was presented for evaluation by peers and faculty of the School of Landscape Architecture, Louisiana State University.

### **The Author's Design Process**

Examination of the researchers design process requires a look into the background of the evolution of that process. Initial exposure to the design process occurred during the fall of 1998. The process began as a new undertaking, with a certain amount of cautious hesitancy. The design studio inspired awe, presenting a place to embrace creativity, and displaying the wonders of design for the eye. Nevertheless, design creativity is sometimes a struggle for attainment. One must examine design for clarity in the design studio. In retrospect, the author can perceive where responsibilities lie for the student and the design instructor.

A “contract” must be established for the design studio to become a rewarding experience. This agreement incorporates both teacher and student, requiring the roles of each participant are set forth as follows: mutual trust and agreement. The teacher must be open to challenge, yet be able to defend the given position. The student must be willing to suspend disbelief.<sup>1</sup> Such accordance should become a bond between student and teacher. It is fair to say that the author had difficulty suspending his disbelief. This caused discomfort not only in the design studio, but also with all who championed its benefit. In retrospect, the problem lay primarily with the author's mistrust, fostered by the previous experience with design and those entrusted with its teaching. However, a

self-directed search may have been brought to the author's awareness. Skepticism of those teaching the process, as well as the process itself, tends to impede a further look into the process and its shaping, inclusive of the inputs, experiences and situations that constitute design. The student remains with a personal concept of the process, which is pivotal in the venture to first understand the background relating to a project. The relevant background of a site is composed of site research, involving its history and significance not only to the present, but also to the future and past.

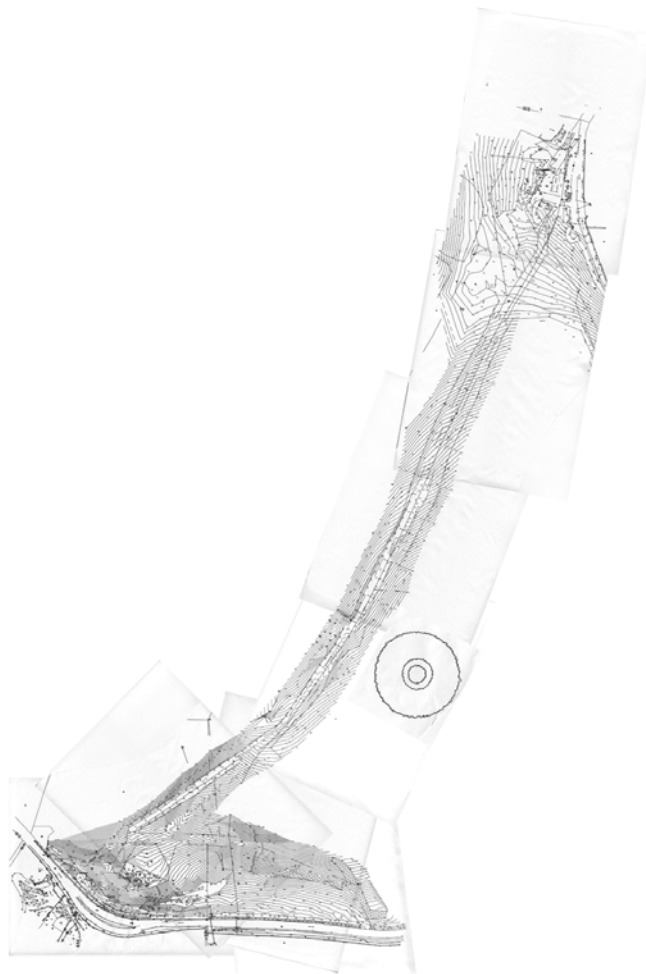


Figure 1:  
Israel Project.

The author's design process is best illustrated by considering a sample of his project. The Design Week 2001 project represents this process. After receiving the information pertaining to the site, the author directed specific questions to the visiting expert regarding the site, such as its history. The site consisted of a narrow strip of land adjacent to the Sea of Galilee, rising from the seashore to an edifice called the Chapel of the Beatitudes. The distance of the site runs 4,100 feet along its length, with a width of 250 feet. The site rises approximately 312 feet in elevation from the shoreline of the Sea of Galilee to the Chapel (fig. 1). The land adjacent to the site is used for agricultural purposes, and primarily for the production of bananas. In addition to the physical features of the land, a strong emphasis was placed on the fact that tradition considers this land to be the site where Jesus performed miracles and preached that portion of the Bible referred to as the Beatitudes. The emphasis of the project appeared to emanate around this information. However, a deeper look was required. I consulted the visiting expert, a designer from Israel who proved to be knowledgeable about the site, which seemed to beg for more than a glance at the few years of its vast existence. The author's sense of creativity suggested that be explored. Research was conducted pertaining to the history of the site, revealing a wealth of information. The history of the land represented a historical fountainhead of the ancient world. The key point discovered was that the Sea of Galilee and that site represented the sole major water source in the immediate region. The significance of that fact, coupled with the desires of men to conquer nations, increased the historical importance of the site. Any army traversing by land from Asia Minor to Egypt or vice versa had to pass through the area to take advantage of this source of water. Making relevant assumptions, this means that Alexander the Great,

Nebuchadnezzar, the Sumerians, Babylonians, Hittites, as well as every conquering force associated with the era would have found it necessary to travel through the area encompassing this site. This knowledge fostered the concept of creating a monument to history, also taking into consideration the land. The first concept involved an artistic installation of a single man of normal size, impaled upon a soldier's pike, in the midst of the banana plants. The idea hinged on the man being 10-12 feet off the ground, as if floating upon a green sea of banana plants. The idea was rejected, due to the fact that the banana plants would die back in the winter time. The main thrust of this idea was that the installation would blend into the site, and winter would therefore render the installation too visible.

In rethinking the design, the author determined to stay with historical figures. The problem centered on creating a memorial to inhabitants. It was decided to create an opening with a solitary tree to symbolize hope for the future. Discovering that Jewish tradition incorporates a sacred or holy tree guided the design. The challenge then became one of representing a human element in the memorial. The author considered strewing the grounds beneath the tree with large boulders, all approximately scaled to the dimensions of a man, indicating that the land was in turmoil. Amidst this turmoil, several pikes would impale the soil. The idea was close but not quite sufficient, because the outcome was too abstract. The author then searched for something a bit more literal wanting to create a model that people would understand. An inspiring example would be Henry Moore's sculpture, A Fallen Warrior. The use of a solitary tree in a clearing remained central to the idea. In the clearing a sculpture of a single warrior represented the men who died in conquest of that land. The warrior lies face-up arching as if just

impaled by the pike protruding from his chest. The clearing would be approximately 150 feet in diameter, in a circular shape. The size was intended to display a sense of separation to the visitor. In order to enhance the sense of separation, the clearing rose to a mound five feet above the existing plane.

In addition, the landscape architect envisioned a place to sit and reflect. To fit this need, a circular seating wall was introduced to the circumference of the entire site at ground level. This was done to enable the visitor to sit, yet enjoy a privacy from those sitting opposite. At this point, the architect sought to merge the surrounding landscape into harmony with this site. It became necessary to return the landscape to a semblance of its former wilderness. The decision was made to replant the surrounding hillside with a native acacia tree, chosen in direct contrast to the sacred tree in the middle of the clearing. The oak tree was chosen, intended to represent longevity, surrounded by a melding of the past, present, and future. The past was aptly portrayed by the sculpture amidst the native landscape. The present constituted those who would visit the site; the future realized by the sacred tree, representing a hope for tomorrow. To have done otherwise seemed inappropriate, and might have displayed a seeming disregard for site selection. However, the design was well suited for a flat or slightly sloping site, not a hillside. The resulting jury of the project brought this detail to the attention of the designer. It became obvious that the design process needed additional consideration of site selection and placement.

### **End Notes**

1 Schon, Donald A., *Educating the Reflective Practitioner: Toward a New Design for Teaching and Learning in the Professions*. San Francisco: Jossey-Bass Publishers, 1987:94.

## **CHAPTER 2**

### **DESIGN PROCESS**

The design process presents a challenge as a thesis, because it is diverse and unique. The inputs associated with the design process are both objective and subjective.

According to Lawrence Halprin they include:

“... existing physical conditions, landscape of the area, geology, geography, soil types, water topology, aquifers, fauna and flora. Population-ethnic makeup, social configurations, cultural/religious patterns, economic base, work habits and patterns, shelter networks, transport, communications, expectations, objectives, feelings, hang-ups and biases, attitudes, lifestyles, fantasies and dreams, hidden agendas, drives, ambitions, ego trips, hopes and fears, inhibitions, energy.”<sup>2</sup>

All these inputs are balanced, weighed, and distributed in relation to the goals of designer and client. These inputs are then calculated along with the client’s desires, dreams, objectives, biases, etc. Norman T. Newton states, “. . . the total, organism as a whole, all over reaction or response that you manifest toward a situation- toward a set of observable facts- expresses what I call your evaluation of that set of facts.”<sup>3</sup>

Every imaginable situation is then processed by a distinctly individual designer or group of designers. Design process then, represents the individual processes that a designer employs to formulate a design solution. The designer must then seek the tools of design. According to Newton, the “. . . marvelous complex of living equipment that constitutes his own personal nervous system.”<sup>4</sup> The tools of designers should include “. . . a keenly sharpened sensitivity, a heightened awareness.... We need to use this capacity consciously, “thoughtfully,” in its application to our purposes.”<sup>5</sup> Yet, the essence of this ‘capacity’ is required. The design process may be categorized in a number of ways.

Peter Rowe introduces the theory of heuristic reasoning, a means of problem solving with unknown results, hypothesizing that an inherent problem solving technique surfaces in the design process. Rowe states that through the basic coincidence of design process and heuristic reasoning, the nature of defining problems and interpreting inputs link the process of design to heuristics. These heuristics then provide a framework for the design process. Heuristics can be divided into a number of modes or subcategories; anthropometric analogies, literal analogies, environmental relations, typologies, and formal “languages.”<sup>6</sup> While these are not all inclusive, they provide a solid framework for discussion. When discussing these heuristics it is important to note that while they deal with the design process, they should not be considered as categories for design process. They simply represent the basis for determining form structure, a part of the larger picture.

There are four analogies employed in landscape architecture. These are anthropometric, literal, iconic, and canonic. Anthropometric analogy deals with the production of design from the imagination or observance of human scale and physical space. It revolves around the idea that one who has knowledge of basic human locomotion and anatomy may formulate a solution. Anthropometric analogies center on design which relates to the human body or scale, and may be applied with no prior experience or reference necessary to explain the design. Design of a stairway exemplifies this heuristic. A person may imagine the desired movement of people between floors to arrive at form resolution.<sup>7</sup> While literal analogies deal with the use of existing forms to produce form resolution, the basis for form resolution emanates from either iconic or canonic analogies. Iconic analogies refer to a recognizable image, landscape or work of

art accepted within the field of design. The landscape of Stourhead represents the picturesque movement in landscape architecture, thus identified as iconic. Canonic analogies refer to proportional systems abstracted from geometric patterns or shapes.<sup>8</sup> Additionally canonic analogies represent accepted tenets of design. The use of visual axes characterize canonic analogies.

Environmental relations, another heuristic, refers to a set of relationships between man and the environment. The concept of environmental relations often deals with form resolution which originates from an observable pattern based on the interaction of man in the physical environment.<sup>9</sup> The need for man to have access to bodies of water emerges from a psychological or spiritual origin. Water relates to a death and rebirth, or a cleansing creating in man a desire to interact with the local water bodies contemplate the nature of their mystery. The pattern, which relates human existence with water bodies, is employed by Christopher Alexander, is a prime example of an environmental relations heuristic.

Typologies as heuristics relate to the use of past design solutions when dealing with related situations. This category may further be sub-divided into other categories, three of which will be represented. Initially, the designer introduced a garden as a model, specifically delineating characteristics deemed suitable for imitation. Secondly, 'organizational typologies,' were used primarily as a framework for solving problems concerning distributions of uses or conformation of functional elements. The third typology, elemental, represents solutions to classes of problems that occur in design: "entry," pedestrian movement, or vehicular circulation, to name a few.<sup>10</sup>



Formal “languages” rely on information associated with other heuristics, specifically typologies and environmental relations. It may be considered language-like to the extent that the processes guiding structure impose an internal consistency, allowing for the meaningful ordering and “correct” functioning of formal elements.<sup>11</sup> Christopher Alexander’s *A Pattern Language* provides an example of design representational of Formal Language. Alexander concentrates on creating a livable city. Within this city, he addresses significant forms that when grouped with other forms, produce successful living conditions. The importance of a promenade’s relationship to activity nodes and shopping streets within a city is representational of Formal languages.

As stated earlier, heuristics as a design construct refers to trial and error in dealing with form solutions associated with design. However, in the classification of designers, there may be multiple heuristic applications, because designers employ a variety of heuristics in their individual design process, as well as from design project to design project.

What makes the study of the individual and ambiguous process of design interesting, is the revelation of the various thoughts that pervade the study of such a process. James Corner, a well-known figure in the world of Landscape Architecture, categorizes the theory of varying design processes. Corner classifies the design processes as positivism, paradigms, avant-garde, and hermeneutics.

1. Positivism- a dogmatic, empirical approach that believes a comprehensive and objective fact structure will be followed by a logical synthesis.
2. Paradigms- a belief that universal models for solution and methods may be used to solve problems.

3. Avant-Garde- a movement of intentional subversion, where the quest for originality spurs on an endless series of experimental reactions.<sup>12</sup>
4. Hermeneutics- a design style dealing with the experiential, and reinforcing the context of a project, thus becoming intertwined with tradition philosophy and culture.<sup>13</sup>

Corner believes these categories more easily classify design.

Positivism refers to a process that depends heavily on the input of facts. This means that the facts generated from the analysis of a project greatly influence the design outcome. The designer might describe positivism as the environmental aspects of a site determining the ultimate design form. This design philosophy relies on interpretation of site facts to impart design solution. Positivism entails an understanding of existing site conditions, combined with the ability to accurately interpret them.

Paradigms, on the other hand, guide the designer to a solitary path. Designing with paradigms entails the use of previous designs as the basis of the current project.

A paradigm is therefore a means, by which a community can determine a sense of common identity, establish some form of socialization, and practice in a consistent and productive way. By following and precepts of a particular paradigm and working methodically with its models, one can move toward an assured solution.<sup>14</sup>

The thought patterns of the founding fathers of the United States are paradigmatic in that a considerable amount of planning was based on axioms and tenets of design practiced in Europe.

The avant-garde design movement relies on a designer who wishes to test the limits of perceived acceptance relating to design. The idea of form resolution may be similar to others, but the outcome is intended to be strongly experimental; a form

resolution that defies the norms of “traditional” design. The work of Martha Schwartz, specifically the Bagel Garden, epitomizes the avant-garde movement in landscape design.

Lastly, Corner presents hermeneutics as a design approach which differentiates the styles of positivism, paradigms, and the avant-garde, from one another in order to propose hermeneutics as a system of design.

Additionally, Robert Mugerauer believes that hermeneutics may be used as a design approach, in contrast to those approaches that encourage creating designs that appear different or are intended to develop a new design style. Hermeneutics encourages reflection on the things that are immediate. Hermeneutics may be used to rediscover the things that are personally close, to the extent that they have become trivial or overlooked. A hermeneutical approach to design reveals what has been forgotten by reviving the true origins of phenomena. That which has been overlooked may be discovered anew, thus enhancing the effectiveness of the processes employed.

This information regarding design process reflects an enigmatic quality, due to the relativity of design. Nonetheless, it provides a pattern for analysis of design process. A network of similarities has been acquired by research. For example, the works of Peter Rowe and James Corner coincide, yet remain individual. Although the use of descriptors may change, the basic ideas of Corner’s paradigms and Rowe’s typologies merge at a certain level. Rowe’s garden model relates to Corner’s thoughts pertaining to paradigms. Rowe discusses the use of heuristics as a collective group, or a single entity with sub-categories to be employed as the need arises. Corner approaches hermeneutics not as a design style, but as an approach to analyzing and interpreting the elements related to a

specific design problem. The introduction of this information enables the thorough study of designers and their design styles that follows in the subsequent chapter.

### End Notes

- 2 Halprin, Lawrence and Jim Burns. *Taking Part*. Cambridge: The MIT Press, 1972: 30.
- 3 Newton, Norman T. *An Approach to Design*. Ann Arbor: University Microfilms, 1965: 32.
- 4 Ibid., 31.
- 5 Ibid., 35.
- 6 Rowe, Peter. "A Priori Knowledge and Heuristic Reasoning in Architectural Design." In *Classic Readings in Architecture*, edited by Kent F. Spreckelmeyer and Jay M. Stein. Boston: WCB/McGraw Hill, 1999. First published in *Journal of Architectural Education* 36, no. 1 (fall 1982): 18-23: 363.
- 7 Ibid., 363.
- 8 Ibid., 364.
- 9 Ibid., 364-5.
- 10 Ibid., 365.
- 11 Ibid.
- 12 Corner, James. "A Discourse on Theory II: Three Tyrannies of Contemporary Theory and the Alternative of Hermeneutics." *Landscape Journal* 10, no.2 (fall 1991): 116.
- 13 Mugerauer, Robert. *Interpreting Environments: Tradition, Deconstruction, Hermeneutics*. Austin: The University of Texas Press, 1995: xxvii.
- 14 Corner, James. "A Discourse on Theory II: Three Tyrannies of Contemporary Theory and the Alternative of Hermeneutics." *Landscape Journal* 10, no. 2 (fall 1991): 119.

## **CHAPTER 3**

### **DESIGNER'S PROCESSES**

The general concepts of the design process will clarify the designer's processes chosen to study. The processes differ primarily in the preconditioned beliefs, as well as the importance placed on specific input during the design process. In studying the processes of Maya Lin, Lawrence Halprin, and I. M. Pei, the noticed differences are immediate. These designers have different backgrounds and cultural heritages, which essentially force a difference in processes and designs as well. They have “successfully” produced designs considered monumental, and it is the processes used to obtain these designs which set them apart. The works of Halprin on the Franklin Delano Roosevelt Memorial, Maya Lin with the Vietnam Veteran's Memorial, Civil Rights Memorial, and the Women's Table at Yale University, as well as I. M. Pei with the design of the Louvre and other designs, provides valuable insight into the design processes of these designers. In essence, the sheer differences of these projects and their designers warrant study.

The design process of a single designer is hard to determine, based on a designer's definition of the process. The expression of rapid thought process during specific points in time is difficult, especially when dealing with designers who are obviously visual people. This being said, the self analysis of the designers is taken at face value.

#### **Maya Lin**

Maya Lin, while an undergraduate student at Yale University, entered an anonymous design competition for the Vietnam Veterans Memorial. The fact that the

design was selected out of approximately 1,000 entrants, together with its enduring success, changed the way war memorials are viewed. The success of the memorial, and Lin's openness in writing about her design process, led to the selection of her work for study.

In studying Maya Lin's work and design process, it quickly becomes evident that her design process is more the process of an artist. Her design process led her down an intricate and winding pathway, yet she seemed focused on each step. According to Lin, research came first: "I spent the first few months researching a multitude of facts, history, and materials...."<sup>15</sup> Her work stems from specific questions she asks herself pertaining to projects. She sees a "purpose" for her designs. The initial stages of a design differ with the type of design. She considers her approach to design to be a form of artwork. From sculptures and memorials to her landscape installments, her approaches are dissimilar from the approach she takes with architecture. In an artwork, the preliminary work is spent researching the background materials relating to the design.

Having been reared in a university environment, Lin has a deeply rooted enjoyment in scholarly research. Her parents are professors- her father in art, her mother in English. Her interests in the written word and art originated from these roots. Such influence is incorporated into a large portion of the process Lin carries out in the course of a design. Memories of her early childhood, playing with her younger brother among the wooded hills of eastern Ohio, together with images of Indian burial mounds, also greatly influenced her designs.<sup>16</sup> Reflections of her past may be seen by the use of mounding landforms in the "Wave Field." A blending of

culture plays a role in Lin's processes, having been raised in the profoundly American setting of a college campus in eastern Ohio, and of Asian descent, provides Lin with the opportunity to view the world and her designs from a unique perspective. Her comprehension of the cultural phenomenon of America also includes the imagery and symbolism of an ancient culture, thus combining the relatively new with the old. Lin grew up living an American existence with little insight into her cultural heritage, with a strong sense of isolation, either from being perceived as different, or from a desire to separate herself. With a sense of exclusion from either her Asian roots or her American identity, Lin became an observer. This external positioning enabled her to create an artwork with a sense of detachment as if designed by a distant onlooker.

When discussing a designer's process, the influences of a designer present a difficulty. The intricate psychological dealings of the mind, woven together in a unique tapestry, are singular to that designer. These unique qualities go into the design process, producing the distinct designs unique to Maya Lin. Lin's unique setting proved to be life viewed through the world of academia. Her exposure to art resulted from her father being a ceramicist; her life among the work her father produced subsequently fostered a strong artistic streak. These influences dictate her unique way of doing things. Lin follows a hierarchy of steps when producing artwork like The Vietnam Veterans Memorial. The first obvious step involves assimilating all the information necessary for the project. Lin, like so many other designers, relies heavily on the input the resources provide to any given design project. The method in which she orders the resources, as well as the way these processes are analyzed, determines the factors that make her design process different.



Figure 2:  
Wave Field, FXB Aerospace Engineering Building, North Campus,  
University of Michigan, Ann Arbor, Michigan, 1993-1995.



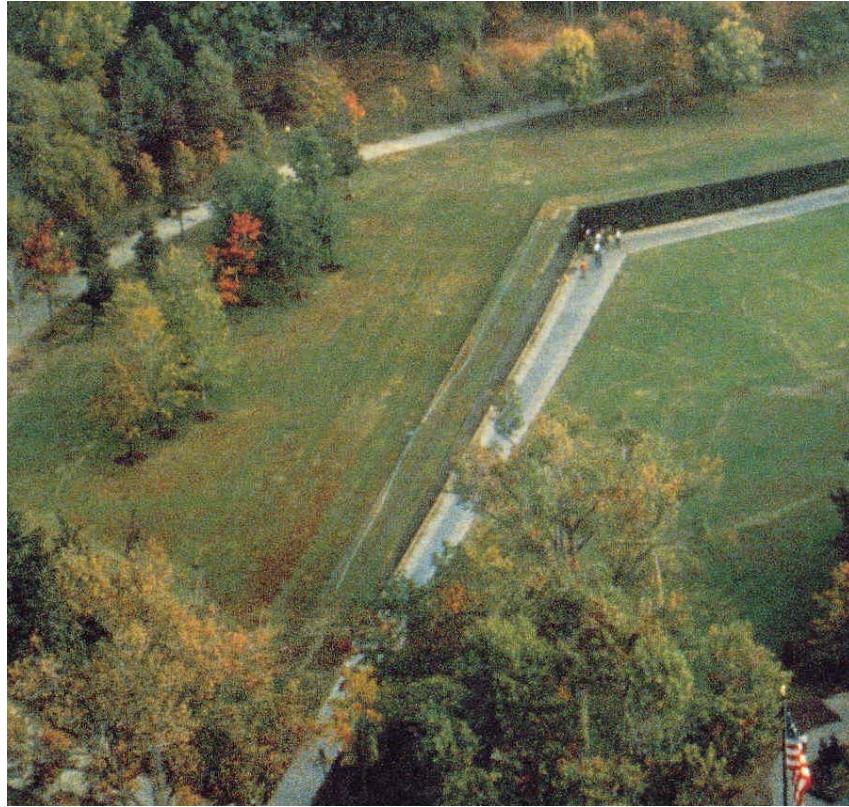


Figure 3:  
Vietnam Veterans Memorial, Washington D.C.

When first approached with a design problem, Lin's initial step is to research the problem. This research is geared toward a better understanding of the historical and cultural context of the problem. The research then becomes one step among many, in developing a solution. The urge to delve deeper is also a result of her upbringing. The research gives her the opportunity to keep learning, though not in an academic setting. The site and project determine the order in which the research and site visit are placed. With the desire to avoid the possibility of form solution being jump started by a site visit, Lin purposely completes her background research before her site visit. The projects that require this amount of care typically are emotionally charged, such as the Civil Rights Memorial. Projects requiring less background research require a

site visit first where Lin looks for a character or feature within the project limitations with which to work.<sup>17</sup> An example of this can be taken from Lin's design of the Civil Rights Memorial. The entrance creates access to an existing building from two symmetrical circular stairways leading up to a landing. The original intent for the space was to place a marker with the names of the deceased inscribed on it, then to place the marker at the base of these two staircases. An immediate reaction was that the space was too small. The solution was to eliminate one of the stairways and use the additional space to create a water wall. A water table was used to record the listing of names and events important to the movement.<sup>18</sup>

A theme that continually emerges in a Maya Lin design is time- the passage of time in regard to a historical event. Three memorials designed by Lin stress the passage of time; The Vietnam Veterans Memorial, The Civil Rights Memorial, and the Women's Table at Yale University. The Vietnam Veterans Memorial was envisioned as a wall upon which the names of the men who lost their lives would be placed. The original intent was to place the names in alphabetical order. Lin envisioned the listing as chronological, this detail being crucial for the intent of the design. This time aspect would allow for the survivors to search out the names of friends and comrades, and in essence relive the time spent in Vietnam, allowing for a more memorable remembrance.<sup>19</sup>

Likewise, the Civil Rights Memorial resulted in a listing of not just names but also events that took place. The conclusion was made that the names were simply not enough. The addition of important events to the listing would add a particular meaning to the names of people important to the civil rights movement. Lin sought more of a telling of the civil rights movement's story than a simple listing of names would provide.<sup>20</sup>

A similar desire existed in the design of the Women's Table on the campus of Yale University. The university wished to commemorate the contribution and diversity of the enrollment of women at Yale. The project once again centered on time. Lin listed the number of women enrolled each year in a chronological spiral, progressing from the beginning and moving out. Time was as important as the number enrolled; it told the story of how the number increased with its passage. Lin chose to leave the spiral open to allow for the addition of numbers to further document the changing of time and perceptions.<sup>21</sup>

The importance of time in Lin's work mirrors the processes of design she employs. A design project, when presented, represents an opportunity to delve once again into the world of knowledge. Lin researches a particular aspect of the design, in order to better prepare herself for understanding and perception of the background of the design. The addition of a site visit to examine the context of a project draws Lin to a further understanding of the project as a whole.

The next step revolves around research; this research becomes a vital part of the form resolution process. This step is critical in Lin's design processes, because it allows time for the idea or form to take shape. However, initial form resolution is not a conscious step in her process. Lin allows the idea to take shape sub-consciously. Form resolution relies upon the ability to shut down the analytical processes of the brain and allow the non-verbal to take over.<sup>22</sup>

Once an idea is born, the process becomes hands-on, possibly a remnant of her father's influence in her life. Model building becomes the primary force in form

resolution for Lin. Lin prefers to create a model without the use of drawings, allowing herself to work in a more spontaneous way.

The detail distinctions between architecture and art may be compared to those between a novel and a poem.<sup>23</sup> A variance in process is involved between creation of architecture and art. The artwork associated with Lin depends heavily on a single idea free of the hindrances of detail. The design of architecture requires a different mode. It becomes centered on the client determined by their needs and functions. It is not a simple process, but one that is multilayered. In architecture, Lin must create space that represents her client, as opposed to the self expression that artwork allows.

The work of Lin revolves around crucial awareness, not just the awareness of physical context, but also the awareness of psychological aspects relating to the site or installation. An emotional reaction becomes a viable reason for creating an artwork. In evoking an emotional response from the visitor, her intent is to create a sense of place, unencumbered with detail; the landscape must be allowed to remain integral to the project, rather than dominate it. The work must belong to the land and remain in harmony with the site as first seen.<sup>24</sup>

### **Lawrence Halprin**

The story associated with Halprin and the Franklin Delano Roosevelt Memorial is quite different from that of Maya Lin and the Vietnam Veterans Memorial. A design competition was held in 1960. A design was selected, but in 1965 the design was abandoned due to public controversy. A second design was then rejected in 1967. In 1974 another competition was held by invitation only. Lawrence Halprin's design was

selected from this group. Lawrence Halprin's work on the FDR memorial, his extensive writing dealing with his personal design process, and his work in group design settings provides an opportunity for study.

Lawrence Halprin's belief in the use of natural processes in design are equally as important to his design process as the cultural processes involved with design. The organisms and life forces around us exemplify the fragility of equilibrium. They also exemplify the changing states of this equilibrium, and the ability to adjust to a disruption in it. It seems, to some extent, that Halprin believes that only nature can create this quality for change. In his workshops, Halprin is continually confronted by the resultant individuality and character created by participants. Halprin is deterred by the thought of individuals in power. His process, as a result of this, is oriented toward cultural awareness. The natural processes that he reinforces are intermingled with the cultural factors that he believes are necessary. The desire to enrich the lives of those who live in the city permeate his writings. Halprin's Taking Part workshops center on the ability to bring people together as a common voice, to express their wants and needs to designers and planners. This empowers planners to create environments in which people could and would live. In this way, he expresses a desire to take into account the multi-faceted cultural arrangements evident today in our society and diminish them to a singular good-the happiness of those living in a community.

The method can be examined through the design process relating to the Franklin Delano Roosevelt Memorial. Throughout the process, Halprin involves a variety of artists in an attempt to create a unified but diverse voice. The basic design is Halprin's, the individual sculptures and carvings are created by various artists.

One cannot enter into a discussion about design process and Lawrence Halprin without discussing the RSVP cycles. The RSVP cycles refer to a group design method employed by Halprin in his workshops. The method relies on the interactions of the four stages of the process: Resources, Scores, Valuation and Product.

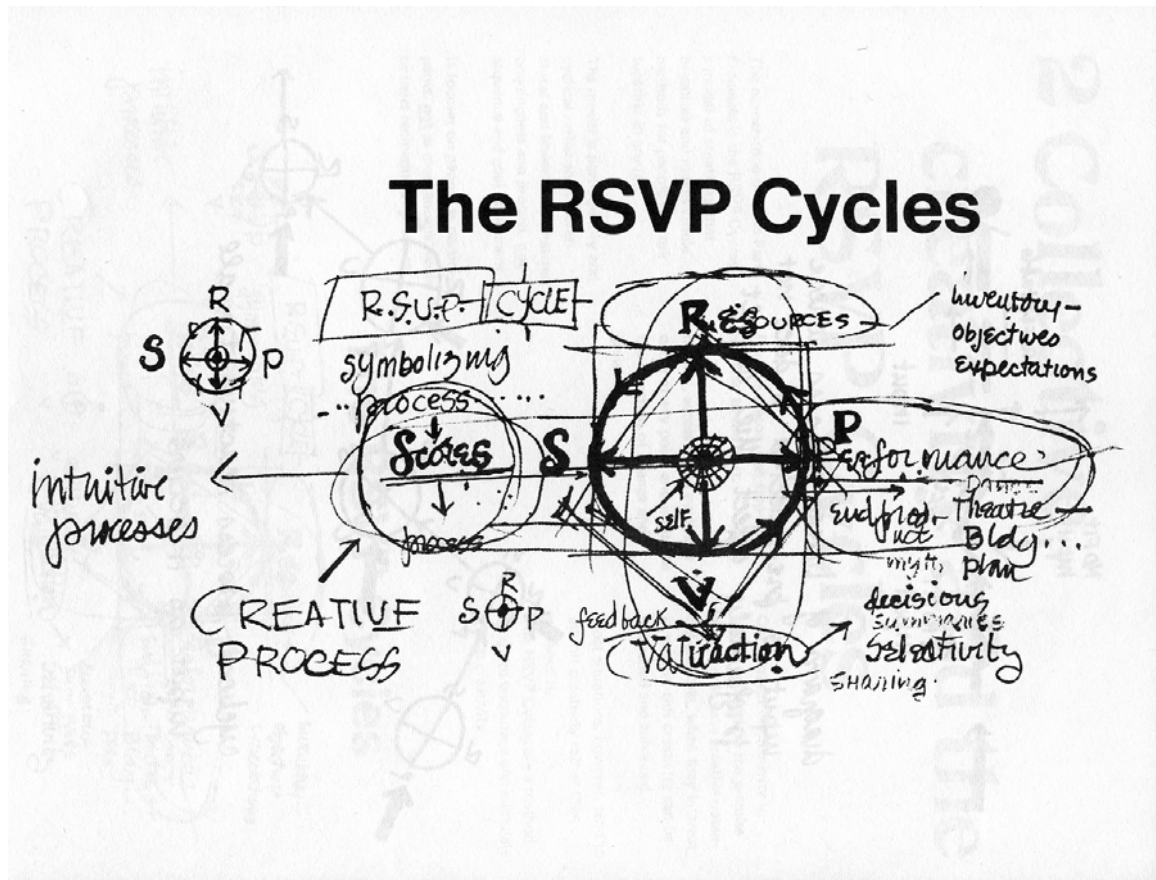


Figure 4:  
The RSVP Cycles.

Resources refer to the given circumstances, inclusive of physical attributes of the site in addition to prior knowledge and bias brought by the human participants. The function of scores is to layout the process of achieving a final solution. A landscape architectural score is defined as any drawing that leads to a finished product. Valuation pertains to the associated resultant feedback of a group design process. The information

may either come from within the group or at the end of the project when the design is submitted for outside approval.<sup>25</sup> Performance relates to how the group arrives at the score; the process by which the drawings are achieved.<sup>26</sup>

The steps outlined above can take place in any order. The process is facilitated when the group moves through that process, unhindered with step-by-step instructions. The importance of the RSVP cycles remains instrumental to understanding Halprin's design process. As a designer, Halprin is keenly aware of the effects of urban planning on people and their environment. This awareness enables or empowers him to seek appropriate solutions for everyone in the course of design, seeking the input of diverse opinions. Halprin welcomes the input of such diverse groups in order to create community. Community refers to a group similar to that found in a climax community in nature. The key is that no one group or element in the community assumes more influence or control than another. The objectivity, cooperation, and contribution from the several serve to achieve the whole. The processes thus employed can be linked to a relationship between the earth's life processes and Halprin's ideas pertaining to the creative process.

Life processes require the activity and input from all 'forces' to maintain balance; alternatively, the creative process is enriched by the contribution of as many inputs as possible. The result then becomes cooperative, not exacted.<sup>27</sup> The process can be demonstrated by the desire of Columbia University to build a gymnasium on a portion of Morningside Park. The park locale is situated in an economically depressed neighborhood, between Columbia and the primarily black community of Harlem. The desires of Columbia produced a conflict of interest between the school administration and

community members. Halprin, in order to better understand the problem, and the inherent difficulties of the site, allowed interested parties such as community leaders and university leaders, as well as members of the surrounding neighborhood, to participate in a group exercise to voice their opinion. The people met and discussed their reservations pertaining to all aspects of the problem, from social ills to hidden agendas. This dialogue enables the entire group, everyone involved, to comprehend the scope of the problem. This interaction, while not necessarily producing the solution desired by each individual group, helps to create a solution beneficial to all participants, without alienation. In addition, the dialogue fosters a sense of community for the neighborhood.<sup>28</sup>

A key element of the RSVP cycle requires individuality in these four elements. While the elements are to be viewed separately, they must operate in a cyclical fashion. Separation of the elements enables them to remain independent, while allowing free movement between one another.

### **I. M. Pei**

The importance of Pei in the field of architecture led to his selection by Francois Mitterand, then president of France, as mastermind of the renovations at the Louvre. The monumentality of the design, its success, and Pei's willingness to discuss his methods lead to the following discussion pertaining to his design process.

I. M. Pei, a well known and respected architect addresses architecture from a creative background. Pei's grandfather, a respected calligrapher, and his mother, well known for her poetry and calligraphic skills, conveyed creativity to the child. However, Pei's father, who had ventured to the city, was the one who ultimately enabled Pei to



share his work with the world. Pei became fascinated with architecture as a young boy in the rapidly growing urban setting of Shanghai.<sup>29</sup>

Pei conveys a process regarding architecture that relies on no particular body of theory. He designs in no deconstructionist or post-modern style, nor in any of the other terms applied to the works of architecture. He simply refers to his and the works of his peers as architecture. The bodies of theory adjoined in architectural discussions have no meaning to Pei. He prefers to remain true to self, in a firm belief that by doing this, his signature creativity will be expressed. If he has a single belief in design, it is to rely on constant variation of a simple theme.<sup>30</sup>

The initial stages of Pei's process reduce a complex program into its simplest form. Once this evolves, it becomes his responsibility to make it work. Pei emphasized this in his addition to the Louvre Museum in Paris. The Cour de Napoleon, at the time connected to the Ministry of Finance situated in the Louvre, was a parking lot with a few small trees. Pei, through analysis and a site visit, determined that the center of gravity for the site, the epicenter, was in the middle of this parking lot. His purpose was to reunite the three wings of the Louvre. If this design was to occur, the center had to be emphasized. The many faceted program's fundamental goal became a reunification of the three wings. It then became Pei's job to make it work.<sup>31</sup>

The pyramid placed in the center of the Cour de Napoleon was modeled on those at Giza, surrounded by three smaller pyramids and seven pools of water. The functional purpose of this installation was to allow ground level access to the facilities at the Louvre. Pei's use of post-modern pyramids in the context of more historical buildings could be viewed as a brash attempt to create a memorial, likening himself to the masters

presently exhibited on site. A closer look at this design and its context encourages a different reaction. The foundations of French art and its architecture relied on a mathematical and geometric basis. The geometric forms of the pyramid, cylinder, sphere and square were the groundwork for classic French art. Pei's use of classic Egyptian architecture, reflects pure design, in harmony with the site. The site thereby becomes a cultural means to approach the works of the masters whose work is enshrined therein.

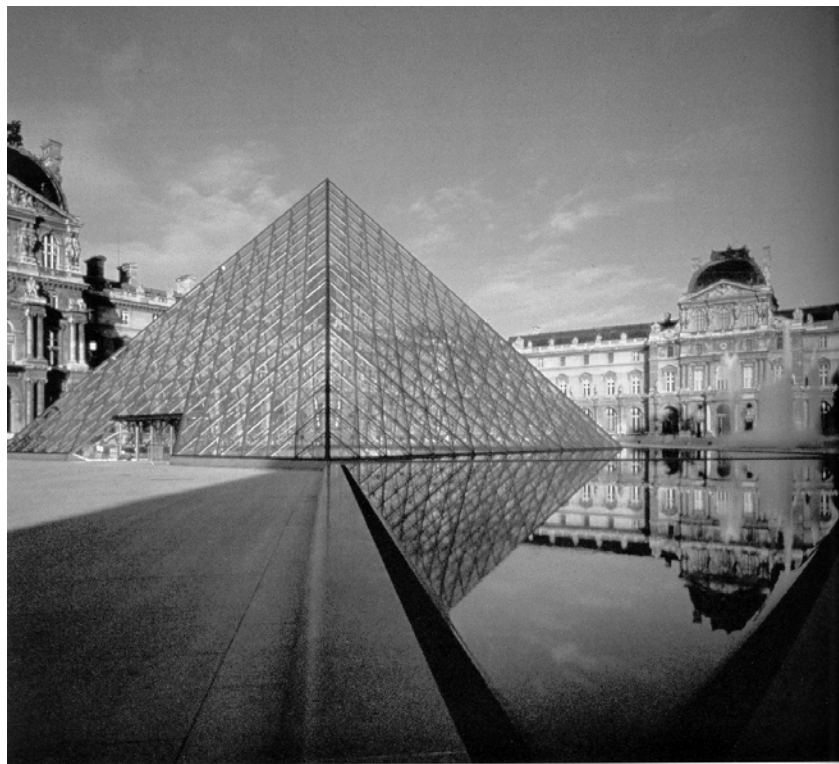


Figure 5:  
The Louvre, Paris , France.

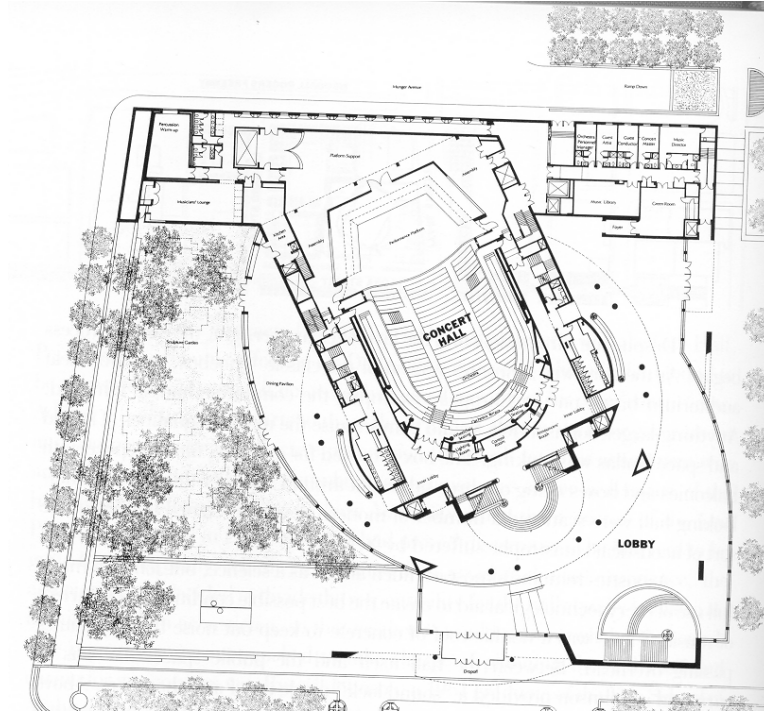


Figure 6:  
The Morton H. Meyerson Symphony Center, Dallas, Texas.



Figure 7:  
Elevation: The Morton H. Meyerson Symphony Center, Dallas, Texas.

The one constant in Pei's work is simplicity, a simple solution being more powerful than a weaker solution of more complex dimensions. Pei believes the driving force of design is geometry. Once a firm grasp of simple geometry is gained, design becomes a means of applying variations and combinations of this geometry. The use of these variations can be seen in Pei's works. The Morton H. Myerson Symphony Center in Dallas is an example of this (fig. 6.) The project reflects Pei's emphasis on variations of geometry in its use of an off-centered rectangle which houses the concert hall itself. The design further developed with the use of a smaller rectangle aligned with the street intersecting the larger rectangle. The rectangles were then enveloped by segments of circles. The use of glass to accentuate the curvilinear aspects of the design along the façade joins the whole (fig. 7.) Another key ingredient in Pei's designs is a reliance on light, both artificial and natural. The use of transparent materials is present in a number of Pei's designs, as well. The Louvre design uses seventy foot tall glass pyramids, while the Myerson Symphony Center's curvilinear facade also incorporates glass.

Pei's participation in life, excluding his personal career, embodies the concept that when one absorbs something, that thing will express itself again in some manner. The significant act when absorbed completely will come out differently, allowing a person to learn. In fact, Pei feels that this is the only way one can learn and contribute. The ability to immerse yourself in life, taking from it, and then being allowed to give it back, in a purely personalized manner leads one to an evolved state.<sup>32</sup>

In a number of ways Pei's process is one with distinct hermeneutical soundings. Hermeneutics believes that a concern and knowledge of not only the immediate is necessary. Understanding of the past and origin of a site relays a true state of knowledge,

enabling a designer to better complete his task. The philosophical, historical, and cultural influences of a people become the springboard of sound design. Pei espouses some of the same beliefs, but never labeling them. An understanding of the history of a people and site were of utmost importance in his design of the Shinji Shumeikai bell tower. The client engaged Pei to design a bell tower. Pei ultimately produced a form reminiscent of a bachi, a traditional Japanese instrument. The simplicity of the form generated evoked Pei's belief in understanding the history of the people for which you are working.

### **End Notes**

15 Lin, Maya. *Boundaries*. New York: Simon and Schuster, 2000: 3:05.

16 Ibid., 6:04

17 Ibid., 2:07

18 Ibid., 4:26

19 Ibid., 4:11

20 Ibid., 4:28

21 Ibid., 4:39

22 Ibid., 3:07

23 Ibid., 2:07

24 Maya Lin: *A Strong Clear Vision*. 1994. Produced by Freida Lee Mock and Terry Sanders. Directed by Freida Lee Mock. Sanders and Mock Productions/American Film Foundation. Videocassette.

25 Halprin, Lawrence. *The RSVP Cycles*. New York: George Braziller, Inc., 1969:2.

26 Halprin, Lawrence and Jim Burns. *Taking Part*. Cambridge: The MIT Press, 1974: 34.

27 Halprin, Lawrence. *The RSVP Cycles*. New York: George Braziller, Inc., 1969:3.

28 Halprin, Lawrence and Jim Burns. *Taking Part*. Cambridge: The MIT Press, 1974: 56.

29 *First Person Singular: I. M. Pei*. 1997. Produced and Directed by Peter Rosen. PBS Home Video. Videocassette.

30 Ibid.

31 Ibid.

32 Ibid.

## **CHAPTER 4**

### **EVOLVING PROCESS/CHANGES**

The author's exposure to: Rowe's heuristic reasoning, Mugerauer and Corner's ideas on hermeneutics, and the writings of Lin, Halprin, and Pei, forced an examination of the design process. This exposure encouraged the author to look more closely at the processes involved in design. The result of this evaluation was an evolution of the author's design process.

The original intent of the thesis was the study of design process in order to create a more thoughtful and complete design, appropriate to the site. Early attempts at memorial design resulted in mixed reviews. The first attempt was well received, whereas the second attempt was not. The task was to determine why the one was successful or appropriate to the site and the other attempt failed. This process would serve to analyze the personal processes that take place in the designer's search for form resolution and provide identification of the related problems. The varying design processes or characterizations of design process are put forth in this paper:

Paradigmatic- the belief that successful or appropriate design can be accomplished by following the guidelines defined by another successful design in another location.

Positivism- the use of empirical data to analyze the facts of a site resulting in suitable design.

Avant-Garde- the idea that everything should be created anew. Designing to push the limits of known design.

Anthropometric- the use of anthropometric qualities to envision the interaction of man and the physical space.

Literal analogies- the borrowing of forms.

Environmental Relations- using preconceived relationships between man and his environment to arrive at appropriateness.

Typologies- specific references used to deal with design problems.

Formal Languages- the use of information gathered from other heuristics to generate a group of languages that can be applied to create a design.

Hermeneutics- the use of cultural, philosophical, and historical analogies to create a design more suited to a site.

lead one to a more thorough understanding of the processes taking place. One or more of these ideas has propelled the author's design process to this point. The question becomes which of these approaches are most appropriate to accomplish a more satisfactory or appropriate design?

An answer to this question must be derived around the author's inability to produce a consistent appropriate design on every project. The answer lies behind the failures of past designs. The design must be appropriate for the site. The downfall of the Israel project apparently came from the site selected for the design. The comment was made that it appeared to have "fallen out of space." This statement is interpreted to mean that the design is not specific to the site selected. This particular project lacked specificity to the site. What in the process must change, if this is to be avoided in future designs? Obviously, in the course of examining the existing conditions, the site must garner more importance.



Two solutions appear: retain the form resolution and find an appropriate place on site, or rethink the form resolution to fit the site. The question becomes which would be the right thing to do? Which is more important to the design process: to first select a place to make a statement, or to make the statement and then attempt to find a suitable site for it?

The answer to this question may be gleaned from the research. Throughout the research, the point comes across that designer's Halprin, Pei, and Lin share a common desire in creating a design. They all wish to be site specific. A design was created to fit the site. A site, if not specifically selected by the designer, responded to a reaction from the designer. Lin's response to site was to pinpoint distinctive elements of the site, with the purpose of integrating the introduced feature seamlessly into the site, producing a new experience or effect.<sup>33</sup>

The same premise may be learned from Halprin's work at Sea Ranch. Halprin proposed taking advantage of the views and vistas by integrating small clusters of one or two story structures. Desiring to create more habitable environs, Halprin studied the effects of wind breaks to establish calm zones. Echoing Halprin and Lin, one of Pei's basic tenets was to take the limitations and maximize them, reacting to the existing conditions. The buildings designed should fit into their surroundings and react or interact with streets and streets to squares.<sup>34</sup>

This idea is also propounded by the authors of more general design processes. The idea of a hermeneutical approach to design advanced by Mugeraurer and Corner resonates with the need for an understanding of all the conditions associated with the site, not just the physical, but the cultural, historical, and philosophical resources involved.

Evolution of the design process is inevitable when engaged in an undertaking such as this one. Additional influence involves a certain harmony of thought between writer and audience. A number of such resonations appeared throughout the course of the research. A chord was struck by the ideas Peter Rowe proffered. Rowe suggested that a series of heuristics, such as environmental/man, anthropomorphic, formal languages, typologies, and literal analogies, when used singularly or as a woven tapestry, enables one to produce a design. These heuristics thus enable the designer to adjust ad hoc. Pei's words echo in my ear when considering the changes to the design process: "Absorb something and it cannot help to come out, but it does not come out the same; it came out completely digested and that's the only way. If you only learn and then repeat you've made nothing, no progress; no contribution at all."<sup>35</sup>

While all of the research proved beneficial to the author in seeking a more thoughtful approach to design, the most influential ideas emerged from the study of hermeneutical approaches to design. The question was proffered earlier as to how the problem of site specificity can be overcome, and the research seems to have provided the answer. The use of a hermeneutical approach will allow the author the opportunity to better understand the site. Increased understanding should allow for a more site specific or appropriate design.

Two distinctions in particular may be made between the works of Rowe and Corner. Corner mentions design styles in contrast with a hermeneutical design theory, while Rowe discusses the varying styles or approaches as interchangeable- no one seemingly more important than another. The second distinction seems to be that Corner's ideas revolve around a theory of design methodology, whereas Rowe's ideas produce

form resolution. In certain ways this proves advantageous to the author. While determining a specific design methodology to be employed, the author also becomes better acquainted with the varying modes available for reaching form resolution. Embracing a hermeneutical design style does not prohibit the varying heuristic approaches from also being used as a means for creating form. By accepting the notion that hermeneutics can help to create a more site specific or appropriate design, the idea follows that this will create a better designer. In the following chapter this approach was tested and the reader can be the judge of success.

### **End Notes**

33 Lin, Maya. *Boundaries*. New York: Simon and Schuster, 2000: 2:07

34 Diamonstein, Barbaralee. *American Architecture Now*. New York: Rizzoli International Publications, 1980: 146.

35 *First Person Singular: I. M. Pei*. 1997. Produced and Directed by Peter Rosen. PBS Home Video. Videocassette.

## **CHAPTER 5**

### **CAMPUS MEMORIAL DESIGN**

The application of a new design approach requires a case study. The case study chosen was the Louisiana State University (LSU) War Memorial located on the parade grounds. The initial stages of the design process involved preliminary research. I had always placed emphasis on research at the beginning of a new project; reading Lin's works caused a new found enthusiasm. The initial steps involved a basic search of campus. The search involves the identification of buildings or spaces on campus significant to the Louisiana State University (LSU) involvement in war. The significant places are: The Pentagon Barracks, based on their housing of cadets when LSU was a compulsory ROTC university, and Middleton Library, named for former Chancellor Middleton who served honorably in World War II. In addition, the Memorial Tower, dedicated in 1926 to all Louisiana natives who died in World War I; the Memorial Oak Grove, a grouping of Live Oak trees planted in 1926 to honor LSU students who died in World War I; and the Jet Age Memorial, located on South College Drive, closely situated to the football stadium dedicated in 1969 to those who fought in the Jet Age.

Research uncovered the original program for the LSU War Memorial. The design was envisioned as a wall, where the names of those who gave their lives in the service of their country could be placed. Additionally, the author believed the design should be accessible to students. The new restriction subsequently removed the areas adjacent to the Pentagon Barracks and the Parade Grounds from consideration. These sites lacked the student exposure desired.

The three on- campus memorials were then examined; the Memorial Tower, the Memorial Oak Grove, and the Jet Age Memorial. The locations of these three military memorials created an unexpected design challenge for the author (figure 8.) This challenge entailed creating a design that would not place an importance of one location over the others. It then became apparent that a memorial could be something other than a design placed in a fixed location. The design intent then became to somehow link the three memorials. Study of campus and building layouts revealed that a visual link could not be achieved. A 12-14 foot elevation change from the quadrangle to the Jet Age Memorial limited this approach, not to mention the innumerable buildings that block the view.

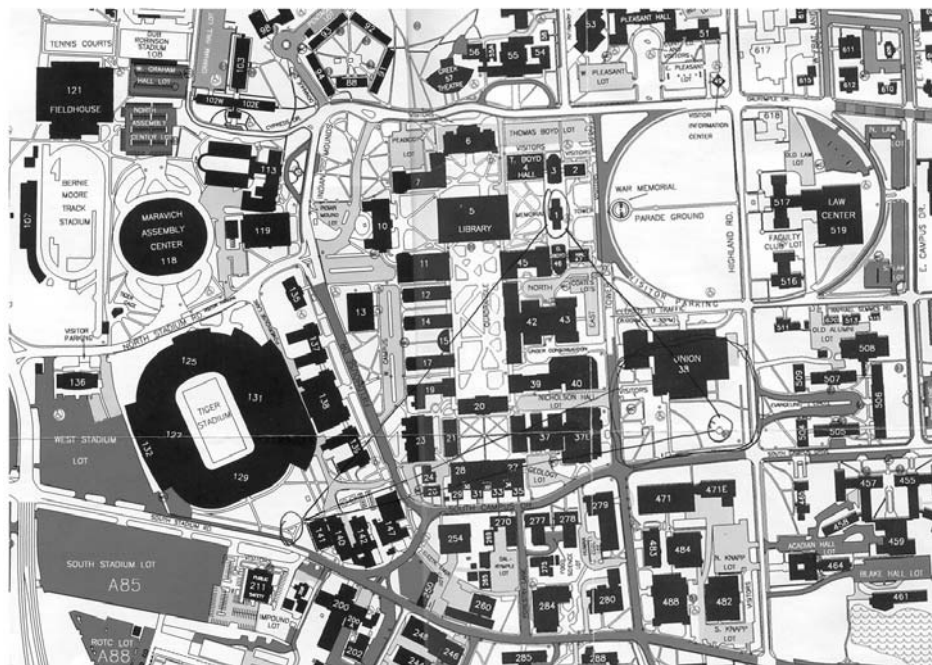


Figure 8:  
Campus Map.

The next considered approach envisioned the use of a footpath that would link the spaces and remind students of the sacrifices of others. The study of campus layout and possible routes of this path uncovered logistical difficulties that discouraged further study.

The answer finally came in the form of an everyday campus occurrence that is often overlooked. The ringing of the chimes in the clock tower associated with the Campanile provided the answer. The challenge then became the profuse sound emitted from the power plant located between the Campanile and the Jet Age Memorial. Overcoming the profuse sound then became the author's major obstacle to a successful design. The author carefully considered the problem: should a sound wall be placed around the power plant, or should the volume of the Campanile be increased? Neither of these solutions proved satisfactory.

The campus at present offers three memorials to the military or war, yet these three seem disconnected. The author realized that further addition of another memorial would lessen the significance of the existing ones. The design then assumed a different direction. Rather than link three distinctly different memorials, perhaps the original two, the Memorial Tower and the Memorial Oak Grove, should be emphasized. Prior to 1960, the sight line between the two sites remained open, providing a visual link. However, the new Student Union Building erected in the Memorial Oak Grove destroyed that visual link. Nevertheless, the potential for a sonic link still existed. Numerous hours were spent in the Memorial Oak Grove to determine the possibilities for a sound link between the two original memorials.

Through the course of this investigation, it was determined that this solution might also be implausible. Daytime traffic along Highland Road produces negative noise in the Grove to the extent that the ability to perceive the sound of the chimes becomes difficult. Additionally the topography of the site creates a hindrance by an approximate drop in elevation of four feet between Highland Road and the Memorial Oak Grove. These impediments deter the bell tower chimes from being heard, and also amplify the road noise.

The noise problem now became the prime issue. The concept of an acoustic shell, designed to amplify the chiming from the bell tower, evolved. The sound would be redirected at the Life Sciences building across South Campus Drive from the Memorial Oak Grove. The idea seemed valid; the inside walls of the shell could be used to inscribe the names of fallen heroes. A visitor could stand and review the names, and at specified intervals, the chimes from the Memorial Tower, would be heard. Thus, the connection to the Memorial Tower and its memorial significance would be accomplished. However, this solution also proved unacceptable after determining the size of the acoustic shell that would be necessary to provide significant amplification. The dramatic proportions of an acoustic shell designed to amplify the sound from the Memorial Tower would be approximately 200 feet wide and 100 feet tall. Albeit magnificent, a shell of this size would destroy the Memorial Oak Grove.

Creating an independent sound source in the Memorial Oak Grove became the focus of the design. Several unforeseen deterrents emerged. The Memorial Oak Grove exists in a U- shape surrounding the back of the Student Union, and is separated into four parts by the Student Union parking lot. Initially, the application did serve to reinforce

this discontinuity, rather than address it. The recognition of this information served as an opportunity to reunite the incoherent pieces of the Memorial Oak Grove.

Once again, the design problem evolved to sharpened resolution. The intention of a sonic connection between the Memorial Oak Grove and the Campanile remained, but now an additional requirement was introduced. A facile method of connecting the two would be an addition of speakers to the Memorial Oak Grove. A new sound source, unique to the Memorial Oak Grove, and in unison with the Campanile's chimes, would be a more powerful solution. The decision of how to incorporate the unification of the Memorial Oak Grove evolved. Originally, the design sought was to serve as a metaphor for the continued cycle of war and peace. The use of a series of walls emerging from the earth and then disappearing into the ground only to appear again in another part of the Grove. These walls characterized the reality of war in human society. The form emerged from exposure to photographs of a series of stone rows in Carnac, Brittany. This solution seemed somewhat defeatist, although a relationship was established to the site, the idea did not create a personalized result.



Figure 9:  
Stone Rows, Carnac, Brittany.



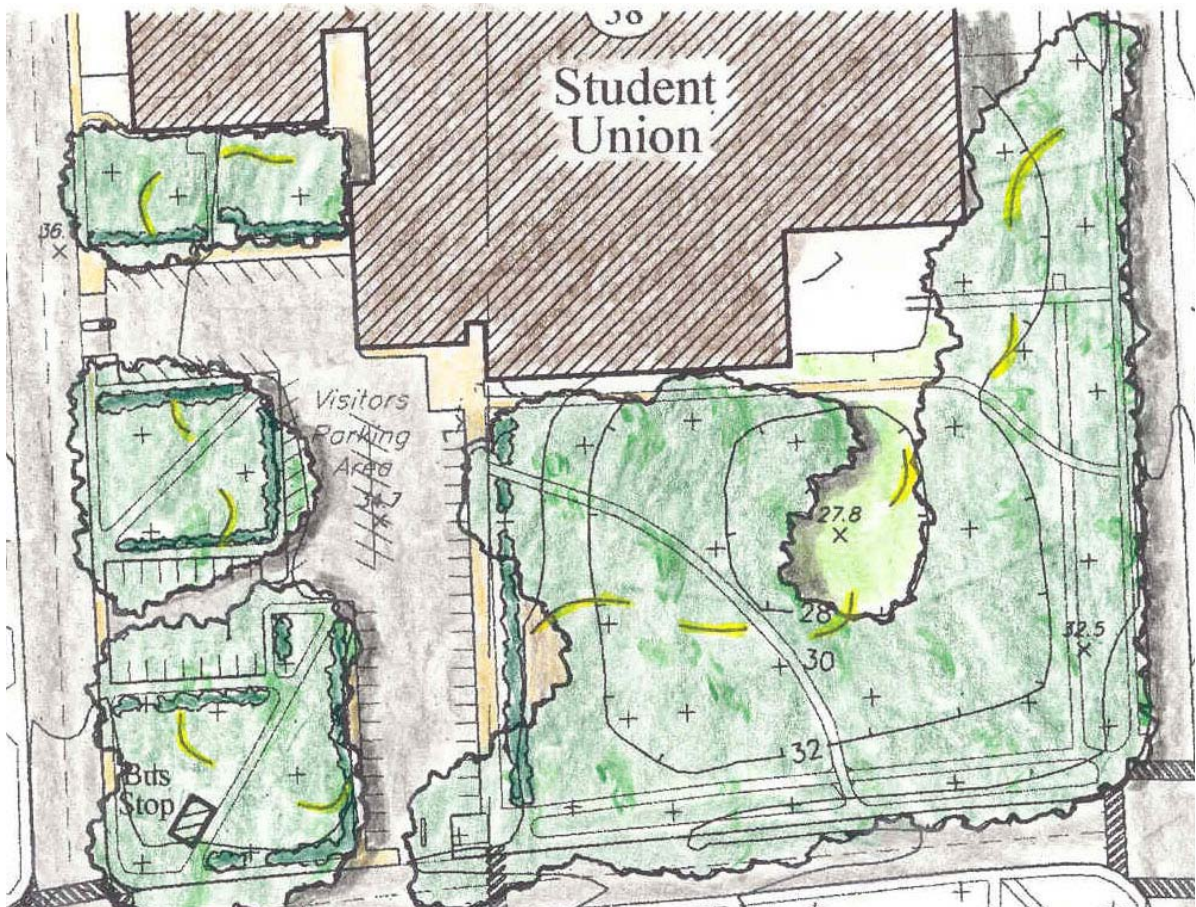


Figure 10:  
Campus Memorial Design, Plan View.



Figure 11:  
Tower Dr. West Side of Site.



Figure 12:  
Ribbon Showing Orientation of Inscriptions.

The solution then emerged from the subconscious thought of the author. The design would revolve around a phenomenon emerging from the Desert Storm conflict. The author recalled the practice of tying a yellow ribbon around a tree to honor the soldiers involved in war. The thought occurred that a similar “ribbon” could be “tied” around the Memorial Oak Grove. The ribbon would have a two-fold purpose: 1) to unify the disjointed grove and, 2) the introduction of a sound source to link the grove back to the Memorial Tower. The names of all students, faculty, and alumni of Louisiana State University who had died in defense of the United States of America would then be engraved upon this ribbon. The concern of the author was that the details of the ribbon would draw attention, yet not seem out of place. With that congruous thought in mind, the author chose unpolished bronze with a hand forged finish for the metal, thereby guarding against any garishness that would appear dissimilar to the Grove’s environment. The ribbon introduces a subtle and fluid movement throughout the grove. It appears, thrusts into the soil, then reappears in another place. By this means, the ribbon would then be present in each part of the grove, providing unity.

Additional factors remained to be addressed, such as unsatisfactory lighting, and parked vehicles. Since the lighting in the Memorial Oak Grove appears harsh and uninviting, a remedy of the situation would be to employ up- lighting in the Memorial trees. The lights would be significant enough to remove the harsh pedestrian light poles and also serve to emphasize the memorial trees. Once again, this light treatment provides a mirror image to the up- lighting used on the bell tower of the Campanile. The decision to screen the view of cars in nearby parking lots would aid in visually uniting the





Figure 13:  
Memorial Oak Grove; Poor View.



Figure 14:  
Up-lighting of Oak Trees

grove's interior space. Such a feat would be accomplished by planting large evergreen shrubs around the parking areas. The design as described above created a suitable memorial, and introduced an engaging link to the Memorial Tower, thus fulfilling the requirements for the project.

## **CHAPTER 6**

### **CONCLUSIONS**

The purpose of this thesis was to study the design process to determine whether design could be enhanced by studying the design process and the design process in which others engage. The study concluded with an application of the evolutionary ideas. Evaluation of this process relies on comparing the results of design process prior to this study against the results of the new process. The comparison of the two designs begins with an analysis of the comments made when the designs were presented for review. The design of the Israel project received positive comments as to its intention, providing a memorial to those who conquered the land of Israel. The problems associated with the design revolved around site selection. The form resolution produced required a flat or slightly sloping site. The site sloped severely, thereby rendering the design inappropriate. In review of the case study, those present judged the project to be site specific, and thus in “harmony” with the chosen site. The use of a brass ribbon alone would border on the gimmicky designs produced previously. The intent of linking the Memorial Oak Grove back to the Memorial Tower through sound proved to be the most important decision related to the design. Creating a design that immediately fit into the fabric of the campus became the impetus of the design. The conclusion that can be taken from this is that something changed in the design approach of the author. The author, aware of the importance of context, strove to produce a design that merged with the context. Earlier endeavors produced designs out of sync with the site. The consequence of this search into the design process was a realization that the essence of sustainable design results

from an awareness of all the inputs associated with a site. A dramatic change had occurred in the design approach of the author.

Previous designs were approached as very personal enterprises, but the author's intent was his choice of design, whether or not it was appropriate. The Campus Memorial was approached from a different viewpoint, attempting to understand the design problem from a more contextual point of view. Contextual may be defined as an attempt to understand as much of the problem as possible. When applying a design style that concentrated on that which is close at hand, the solution becomes more powerful.

The relevant advantages of a hermeneutical design approach, as well as the importance of site context, were underscored by the remarks of successful designer, and the particular devotion to research of Lin. The ideas of hermeneutics are echoed throughout the process. Although designers never once used the term, it is nevertheless appropriate. The resultant approach freed the designer to concentrate on design ideas relevant to the site and context, and subsequently a framework. Once the parameters of the problem were obtained, a site specific design could be achieved. The easy solution would be to create a wall located somewhere other than the parade grounds. The problem then created would be how the new wall relates to its site. The new wall could be placed anywhere and "fit in." By applying the phenomenon of the yellow ribbon and its association with oak trees, this memorial fits into the context of the Memorial Oak Grove. The additional focus of the sonic link enhanced the design. This addition allowed the design to not only fit into the context of the Memorial Oak Grove, but it permits the design fit into the context of the campus of Louisiana State University.

This information is supportive of the belief that the design process can be enhanced by the study of designer's processes and design process in general.



## REFERENCES

Corner, James. "A Discourse on Theory II: Three Tyrannies of Contemporary Theory and the Alternative of Hermeneutics." *Landscape Journal* 10, no. 2 (fall 1991):115-133.

Diamonstein, Barbaralee. *American Architecture Now*. New York: Rizzoli International Publications, 1980.

*First Person Singular: I. M. Pei*. 1997. Produced and Directed by Peter Rosen. PBS Home Video. Videocassette.

Lin, Maya. *Boundaries*. New York: Simon and Schuster, 2000.

Halprin, Lawrence. *The RSVP Cycles*. New York: George Braziller, Inc., 1969.

Halprin, Lawrence and Jim Burns. *Taking Part*. Cambridge: The MIT Press, 1974.

Maya Lin: *A Strong Clear Vision*. 1994. Produced by Freida Lee Mock and Terry Sanders. Directed by Freida Lee Mock. Sanders and Mock Productions/American Film Foundation. Videocassette.

Mugerauer, Robert. *Interpreting Environments: Tradition, Deconstruction, Hermeneutics*. Austin: The University of Texas Press, 1995.

Newton, Norman T. *An Approach to Design*. Ann Arbor: University Microfilms, 1965.

Rowe, Peter. "A Priori Knowledge and Heuristic Reasoning in Architectural Design." In *Classic Readings in Architecture*, edited by Kent F. Spreckelmeyer and Jay M. Stein. Boston: WCB/McGraw Hill, 1999. First published in *Journal of Architectural Education* 36, no.1 (fall 1982): 18-23.

Schön, Donald A., *Educating the Reflective Practitioner: Toward a New Design for Teaching and Learning in the Professions*. San Francisco: Jossey-Bass Publishers, 1987.

## **VITA**

Joel Shay Aulie was born in Temple, Texas. He received his Bachelor of Science degree in agricultural economics from Texas Tech University in December of 1996. In the fall of 1998, Shay entered the Master of Landscape Architecture program at The University of Texas at Arlington. Most recently, Shay transferred to Louisiana State University in the fall of 1999, to complete his career preparation in landscape architecture.